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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/009,794	12/17/2001	Jean Yves Le Roux	B0250	5795

EXAMINER	
CHEN, ALAN S	

ART UNIT	PAPER NUMBER
2182	4

466 7590 10/30/2003

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DATE MAILED: 10/30/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/009,794	LE ROUX ET AL.	
	Examiner	Art Unit	
	Alan S Chen	2182	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____ .

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) 1-3 is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) 1-3 is/are rejected.

7)☒ Claim(s) 1 is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on 17 December 2001 is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other:

DETAILED ACTION

Claim Objections

1. Claim 1 is objected to because of the following informalities: the use of multiplexer and demultiplexer appears to be used interchangeable but they refer to two technically distinct logic elements. A multiplexer chooses one of many inputs to steer to its single output under the direction of its control inputs while a demultiplexer is a single input is gated to exactly one of the outputs. So in essence, they are opposites. The term multiplexer should be replaced with demultiplexer in claim 1. Appropriate correction is required.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3. Claim 1 is rejected under 35 USC 103(a) as being unpatentable over No. 5,349,343 to Oliver in view of No. 5,583,562 to Birch et al. (hereafter Birch).

Oliver discloses the novelty of the applicant's invention (as stated in first paragraph of the specificatin), which is to have a device and means (Fig. 3) to automatically manages the flow of digital data from a host. Oliver discloses two modules (indicated by Slot A and B in Fig. 3) which has two connectors that are required to mount into the backplane. Oliver discloses the ability to automatically manage the flow of the digital data from a host by using switching mechanisms (left and right switches in Fig. 3), the control of the switches being managed by an external processor (Column 4, lines 29-37). Note that Oliver indicates the control can be

manual, e.g., inputted directly by user-generated input, or through a controller (Fig. 2, element 48), hence automatic, without the need for user input/intervention. The pilot in this case would be the controller (Fig. 2, element 48) determines the order of the priority of the flow within the two modules.

Oliver does not disclose expressly a host constituted by a decoder for the reception of digital television including a demodulator, processor, demultiplexer, and an ASIC aiding the processor to automatically recognizes each module.

Birch discloses a device (Fig. 5 and 6) for automatically managing the flow of digital data from a host (the host can be the provider of the signal, in this case the source of the digital signal, Fig. 1, element 160, or as described in applicant's specification page 1, line 17, a decoder, shown in Fig. 5 of Birch), constituted by a decoder (Fig. 5), a demodulator (Fig. 25, element 580), a demultiplexer (Fig. 6a, element 612), a processor (Fig. 6a, elements 618, 620, 622 or 630) and an ASIC (Fig. 584).

Oliver and Birch are analogous art because they are from the same field of endeavor in computer architecture in controlling the flow of digital information.

At the time of the invention it would have been obvious to a person of ordinary skill in the art to use the receiver/decoder invention of Birch to modify Oliver's backplane invention.

The suggestion/motivation for doing so would have been that Oliver's invention is a generic computer architecture design for use with many different types of electronic equipment (Column 1, lines 15-23) that allow the accommodation of a plurality of circuit modules. In digital television hardware, expandability via external modules this is prevalent as indicated by

Birch (Fig. 1, element 159 and Column 6, lines 11-16) for equipment such as HDTV reception equipment, digital audio reception equipment, video game equipment, etc.

Therefore, it would have been obvious to combine Birch with Oliver for the benefit of module expandability in digital television equipment.

4. Claims 2 and 3 are rejected under 35 USC 103(a) as being unpatentable over Oliver in view of Birch.

Oliver combined with Birch disclose the device according to claim 1.

Oliver does not disclose expressly the device or a process according to claim 1, where an ASIC inserted between the demodulator, demultiplexer and processor, allowing the automatic recognition of modules inserted in its connectors and permitting interchanging the movement of the flow.

Birch discloses the control of the flow of data using a decoder for digital television signals (Fig. 5) that consists of an ASIC (Fig. 5, element 584), situated between the demodulator (Fig. 5, element 580), demultiplexer (Fig. 6a, element 612) and the processor (Fig. 6a, element 618, 620, 622 and 630).

Oliver and Birch are analogous art because they are from the same field of endeavor in computer architecture in controlling the flow of digital information.

At the time of the invention it would have been obvious to a person of ordinary skill in the art to use the receiver/decoder invention of Birch to modify Oliver's backplane invention, specifically using an ASIC because of the programmability, density, and convenient single chip integration of logic it provides.

The suggestion/motivation for doing so would have been that Oliver's invention is a generic computer architecture design for use with many different types of electronic equipment (Column 1, lines 15-23) that allow the accommodation of a plurality of circuit modules. In digital television hardware, expandability via external modules this is prevalent as indicated by Birch (Fig. 1, element 159 and Column 6, lines 11-16) for equipment such as HDTV reception equipment, digital audio reception equipment, video game equipment, etc. Furthermore, using ASICs are the standard trend in the electronics industry due to the aforementioned reasons.

Therefore, it would have been obvious to combine Birch with Oliver for the benefit of module expandability in digital television equipment and use of industry standards.

Conclusion

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

The following patents are cited to further show the state of the art with respect to controlling flow of digital information between two or more modules:

U.S. Pat. No. 5,793,998 to Copeland et al.

U.S. Pat. No. 5,968,149 to Jaquette et al.

Int'l Pub. No. WO 93/15464 to Kelly

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Alan S Chen whose telephone number is 703-605-0708. The examiner can normally be reached on M-F 8:30am - 5:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jeffrey A Gaffin can be reached on 703-308-3301. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-3900.

ASC
10/22/2003

Rehana Perveen
Art Unit 2182